

REMARKS

The Office Action of June 10, 2005 has been received and carefully reviewed. In response, the abstract and portions of the specification have been amended without addition of new matter, claim 35 has been cancelled without prejudice, and claims 1, 2, 8-12, 14, 19, 30, 31, and 36 have been amended, with claims 2, 8, 12, 14, and 36 being rewritten in independent form, whereby claims 1-34 and 36-40 are currently pending in the application.

I. ABSTRACT

The abstract was objected to for including the phrase "is provided". A substitute abstract has been provided in the above amendment, by which this phrase has been deleted in accordance with the Examiner's suggestion, whereby this objection is believed to have been overcome, and notice thereof is requested.

II. SPECIFICATION

The specification has been amended above to correct several typographical errors and other informalities without adding new matter.

III. CLAIM OBJECTIONS

Claim 30 was objected to in the Office Action, for lacking antecedent basis for "said length". By the above amendment, claim 30 has been amended to depend from claim 29 in accordance with the Examiner's observation in the Office Action, whereby antecedent basis now exists for the phrase "said length". Applicants therefore submit the stated claim objection in the Office Action has now been addressed by the above amendment.

IV. ALLOWABLE SUBJECT MATTER

The Office Action indicated at page 7 that claims 20-30 are allowed over the prior art and that claims 2-6, 8, 10, 12-18, and 36-40 would be allowable if rewritten in independent form. Applicant has accordingly amended claims 2, 8, 12, 14, and 36 above to rewrite these as independent claims, including all of the limitations of the base claim and any intervening claims, whereby claims 2-6, 8, 12-18, and 36-40 are now in condition for allowance. In addition, dependent claims 9 and 11 have been amended to depend from independent claim 8, and claim 19 has been amended to depend

from allowable independent claim 2. Claim 10 has been amended to depend from allowable claim 16 and to recite that the reference core is a solid metal wire with a desired diameter. Thus claims 9, 11, 10, and 19 are also believed to be allowable as being ultimately dependent from an allowable independent claim, and reconsideration and allowance thereof is respectfully requested.

V. REJECTION OF CLAIMS 1, 7, 9, 11, 19, AND 31-34 UNDER 35 U.S.C. § 102

Claims 1, 7, 9, 11, 19, and 31-34 were rejected on pages 3-5 of the Office Action under 35 U.S.C. § 102 as being anticipated by Migliori 6,568,578. Reconsideration and withdrawal of these claim rejections is respectfully requested for at least the following reasons.

(a) Claims 9, 11, and 19

Claims 9 and 11 have been amended to depend from allowable independent claim 8, and claim 19 has been amended to depend from allowable independent claim 2, whereby reconsideration and withdrawal of the rejections of claims 9, 11, and 19 is requested under 35 U.S.C. § 102.

(b) Claims 1 and 7

By the above amendment, independent claim 1 has been amended to recite that the welding wire is a cored or solid welding wire, which feature is neither taught nor suggested by Migliori. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 102 is requested with respect to amended claim 1 and claim 7 depending therefrom.

(c) Claims 31-34

Independent claim 31 has been amended above to recite moving the cored welding wire through the coil along the path. This feature is neither taught nor suggested by Migliori, which instead relates to static measurements with coils placed in fixed positions on or around the metallic sheet or economizer tube (*i.e.*, no relative movement between the measured pipe and the coil). Therefore, independent claim 31 and claims 32-34 depending therefrom are believed to be patentable over Migliori and reconsideration and allowance thereof is requested.

VI. REJECTION OF CLAIM 35 UNDER 35 U.S.C. § 103

Claim 35 was rejected under 35 U.S.C. § 103 as being unpatentable over Migliori. Claim 35 has been cancelled without prejudice in the above amendment, whereby the rejection under 35 U.S.C. § 103 has been rendered moot.

VII. APPLICANT'S COMMENTS TO REASONS FOR ALLOWANCE

The Office Action at pages 7-9 indicates reasons for the indication of allowance and allowability of various claims. With respect to claim 14, the Office Action indicates (pages 8 & 9) that the prior art does not disclose methods or apparatus being applied to a solid welding wire such that the physical characteristic is the thickness of the *cored* welding wire. In this regard, Applicant submits that claim 14 and claims 10 and 15-17 depending therefrom do not recite cored welding wire.

VIII. CONCLUSION

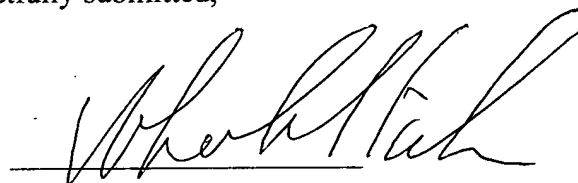
The specification and abstract have been amended to correct various informalities without adding new matter, claims 1, 2, 8-12, 14, 19, 30, 31, and 36 have been amended, and claim 35 has been cancelled without prejudice. For at least the above reasons, the currently pending claims 1-34 and 36-40 are believed to be in condition for allowance and notice thereof is requested.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should any fees be due as a result of the filing of this response, the Commissioner is hereby authorized to charge the Deposit Account Number 06-0308, LEEE200324.

Respectfully submitted,

By: _____



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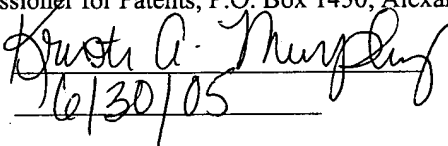
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6/30/05